

U.S. Appln. No. 09/820,757 - HANADA et al.

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IN THE CLAIMS:

Claim 1 (currently amended): A thermoplastic resin sheet having a thermoplastic resin expanded layer of which expansion ratio is in a range of 3 to 40 times, and cell wall density ratio is in a range of 2 to 20, wherein the cell wall density ratio is defined as being  $T/S$  wherein  $T$  denotes a cell wall density in the direction of thickness of the expanded layer and  $S$  denotes a minimum value of the cell wall density in the direction perpendicular to the direction of thickness of the expanded layer, wherein a cell wall density is defined as being the average number of cell walls existing within a distance of 1 mm in the expanded layer.

Claim 2 (currently amended): A thermoplastic resin sheet having a thermoplastic resin expanded layer of which expansion ratio is in a range of 3 to 40 times, and cell wall density ratio is in a range of 6 to 20, wherein the cell wall density ratio is defined as being  $T/S$  wherein  $T$  denotes a cell wall density in the direction of thickness of the expanded layer and  $S$  denotes a minimum value of the cell wall density in the direction perpendicular to the direction of thickness of the expanded layer, wherein a cell wall density is defined as being the average number of cell walls existing within a distance of 1 mm in the expanded layer.

Claim 3 (currently amended): A thermoplastic resin sheet having a thermoplastic resin expanded layer of which expansion ratio is in the range of 3 to 40 times, cell wall density across a thickness direction of said thermoplastic sheet is 8 cells/mm or more, and cell wall density ratio is in a range of 6 to 20, wherein the cell wall density ratio is defined as being  $T/S$  wherein  $T$  denotes a cell wall density in the direction of thickness of the expanded layer and  $S$  denotes a minimum value of the cell wall density in the direction perpendicular to the direction of thickness of the expanded layer, wherein a cell wall density is defined as being the average number of cell walls existing within a distance of 1 mm in the expanded layer.

Claim 4 (currently amended): A thermoplastic resin sheet having a thermoplastic resin expanded layer of which expansion ratio is in the range of 3 to 40 times, cell wall density across a thickness direction of said thermoplastic sheet is 8 cells/mm or more, and cell wall density ratio is not less than 2 but less than 6, wherein the cell wall density ratio is defined as being  $T/S$  wherein  $T$  denotes a cell wall density in the direction of thickness of the

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expanded layer and S denotes a minimum value of the cell wall density in the direction perpendicular to the direction of thickness of the expanded layer, wherein a cell wall density is defined as being the average number of cell walls existing within a distance of 1 mm in the expanded layer.

Claim 5 (original): The thermoplastic resin according to claim 1, wherein average cell diameter of said expanded layer is in the range of 1  $\mu\text{m}$  to 100  $\mu\text{m}$ .

Claim 6 (original): The thermoplastic resin sheet according to claim 1, wherein the said expanded layer is formed of polypropylene-based resins.

Claim 7 (previously presented): The thermoplastic resin sheet according to claim 1, wherein said thermoplastic sheet has a polyolefin-based resin unexpanded layer, that is laminated on said expanded layer and has an expansion ratio in a range of 1.0 to 1.5.

Claim 8 (original): The thermoplastic resin sheet according to claim 7, wherein said unexpanded layer is formed of polyolefin-based resins having long chain branch.

Claim 9 (original): A container being form from the thermoplastic resin sheet of claim 1.

Claim 10 (previously presented): The thermoplastic resin sheet according to claim 7, wherein said unexpanded layer has an expansion ratio in the range of 1.0 to 1.1.

Claim 11 (previously presented): The thermoplastic resin sheet according to claim 7, wherein said unexpanded layer is formed of a polyolefin resin having a branching degree index [A] that is a numerical value defined by:

$$[A] = [\eta]_{Br} / [\eta]_{Lin}$$

wherein  $[\eta]_{Br}$  represents the intrinsic viscosity of a polyolefin resin having a long chain branch and  $[\eta]_{Lin}$  represents the intrinsic viscosity of a straight chain polyolefin having the repeating monomer units and weight average molecular weight as the polyolefin resin having the long chain branch.

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Claim 12 (previously presented): The thermoplastic resin sheet according to claim 11, wherein said unexpanded layer is formed of a polyolefin resin having a branching degree index [A], wherein  $0.20 \leq [A] \leq 0.98$  is satisfied.